

Abstract of the Disclosure

Disclosed is an apparatus for converting an analog image
5 data into a digital image data in a CMOS image sensor
including a pixel array having M(row line)×N(column line)
color pixels, wherein the color pixels include a first color
pixel for sensing a first color, a second color pixel for
sensing a second color and a third pixel for sensing a third
10 color. The apparatus includes an analog reference voltage
generating unit for generating different analog reference
voltages according to the analog image data of the color
pixels, wherein the different analog reference voltage has
different value and different decline rate, a selecting unit,
15 in response to a select control signal, for selecting one of
the corresponding analog reference voltages according to the
color pixels, and a comparing unit for comparing the analog
reference voltage and the analog image data to generate the
digital image data corresponding to the color pixels, whereby
20 a conversion operation of the analog image data into the
digital image data is differently carried out according to the
color characteristic.